

# The LongPath

A North Alabama DX Club Publication

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## How to Join

- \* Come to a club meeting;
- \* or send in an application by mail (form on [www.NADXC.org](http://www.NADXC.org))

## From the President

The first hamfest, although virtual, since Orlando (last Feb) will start a few hours before the Long Path will get to you, but I certainly hope everyone has already registered for it. The **QSO Today Virtual Ham Expo** will be a totally new experience, and one that I hope is good enough that it continues. I am certainly starved for a hamfest at this point, and have already missed several that I attend regularly. QSO Today has scheduled over 60 speakers along with 45 sponsor booths (one of which is Gigaparts). I understand 21,000 attendees had signed up as of last week (dangerously close to the Hamvention population). Activities will remain on-line for a month after it is over. This event will be the buzz of our local ham community for quite a while. Don't miss it.

Vote on classes of membership at the August meeting: Last January I kicked off a series of changes to the club's constitution to make our membership classes more meaningful. Tom Duncan, KG4CUY, has navigated us through a series of notifications and intermediate votes to bring us to this point. At our meeting next Tuesday we will conduct the final vote. Read about the consequences of this move in Tom's Long Path article. By the way, our virtual meetings have been attracting 22-24 members each month since we started doing it in April.

I've asked Bruce, AC4G, if he might be able to sponsor a Long Path column called "software tools" for a while. I don't know how successful we can be with this, but there is an almost infinite list of great software tools we can use to both make our hobby more interesting, as well as to solve our daily mundane problems. From my view, he would task you members to write an article about software tools each month that you have found useful. We'll kick off the column this month with a few articles on propagation prediction. I use those tools here in my own hamshack to simulate circuits, copy RTTY and FT8, find DX spots, keep my log, and so many more. I hope to dig up ideas that are new and refreshing, and lead us to think in new ways. But it's really all up to you – we don't go through all this effort just to amuse you; the club is a team effort to raise ourselves up and do better with this amazing hobby.

I had planned to start advertising the club autumn picnic in this issue. I had such a great time last year, and was looking for a rerun. But just as the epidemic has cancelled the Hamvention, the Huntsville Hamfest, and so many other popular activities, so it now is can-

Cont'd on p. 8

## Impedance Match CATV Hardline for Amateur Radio Use

August Program by Bruce Smith, AC4G

There's a lot of 75 ohm hardline out there at attractive prices. We know about its vaunted low loss, but do we know how to match to it—at both ends? Bruce will cover putting this low-loss, low-cost resource to use without breaking the bank. Our Zoom meeting officially begins at 7:00, but Bob will open things up around 6:30. Look for an email in the next few days with details.



Like most of my projects the SB-220 6-meter conversion project turned into a learning experience. That is codeword for painful. My first test had 10 W input gave 10 W output. The first thing I learned was that it is difficult to solder to the nichrome wire I used in the parasitic suppressors. I had modified them from 3 turns to 2 turns but the solder connection was poor. I had to change that back to using the 47Ω resistor and 2 turns of copper wire around it. A test showed no improvement.



Fig 1. The old SB-220 trying to assert its position in the evolving station.

I was not happy with the grid circuit, so I removed all the capacitors and resistors from the Harbach modification and Heathkit design and instead installed copper straps to ground. The 1973 ARRL Handbook recommends direct grounding on a 6m 3-500 amp.

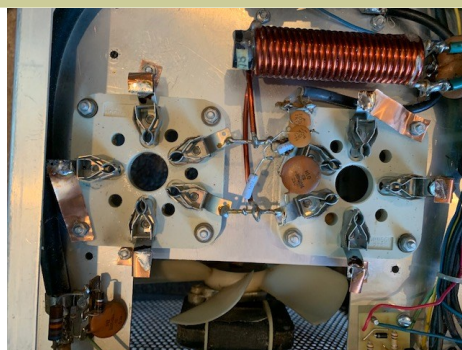


Fig. 2. The new grounding straps on the 3-500Z tubes.

I also removed the resistors from the Harbach mod at the input to the tube. I even took out the nichrome wire from the RF choke to the coupling capacitor and went back to copper wire. I took out all the modifications I had put in to make the amplifier more stable on HF. But there still wasn't any gain.

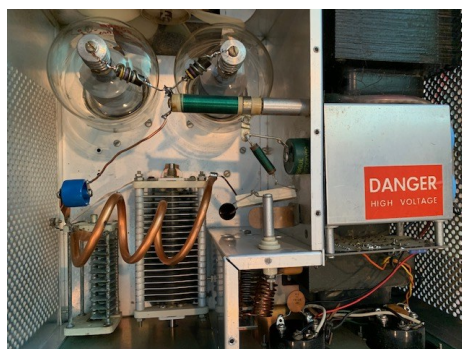


Fig. 3. The new tuning coil and the door-knob capacitor.

I had read that if you want to get more output, replace the 1000pF coupling capacitor with a lower value. I talked to John, N5DF, who had 400pF doorknob capacitors that were rated at 7.5KV instead of the original 6 KV so I installed one. I tested that modification and I still had no gain.

The input tune control peaks the output with about half capacitance yet SWR showed good. I believed that circuit was working. In the previous tests the load control used little or no capacitance from the 250pf load capacitor,

maybe 40 pf. The tune control used very little or no capacitance from the 60pf capacitor, maybe 15pf. Having almost no tune or load capacitance turned out to be a big clue as to why I had no output.

I got the 6-meter amplifier to work by going to a 2.5 turn output tank coil 3 inches long. It was half the size of the previous coil. Bob, K8KI, sent me graphs of PI network designs that showed low tune and load capacitance means the Q is too low. I raised the Q with lower inductance. Finally, the amp appears to be stable with no arcing yet. My initial test result was:

- Power in 40 watts
- Power out 800 watts
- Plate voltage 3000 volts
- Plate current 520 ma
- Grid current 100 ma



Fig. 4. Slightly improved Plate and Grid Currents.

I am not sure how many of the modifications were necessary, but I am declaring victory. I had Johnny, KR4F,

Cont'd on p. 3

check the quality of my FT8 signal which was good so I was ready for the CQ WW VHF contest.

I had Bob, K8KI bring his LP-500 over to further test the amplifier. We were able to make a good trapezoid pattern on SSB and measure rise and fall time of the CW signal from the FTDX-101MP. I was able to drive the amplifier with 45 watts and finally get 892 watts output. See Fig. 6.



Fig. 5. Split Screen Voice and Trapezoid on the LP-500.

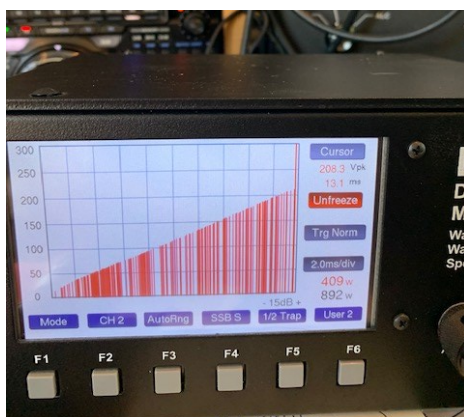


Fig. 6. Half Trapezoid on the LP-500. Notice the linearity and the 892 watts!

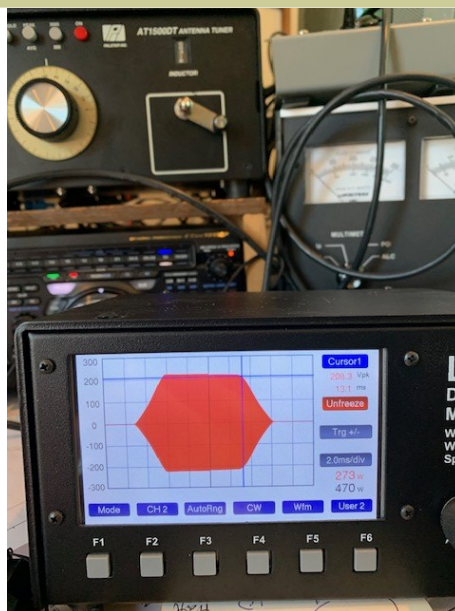


Fig. 7. Split Image of CW Rise and Fall Times at Amp Output.

The conditions during the CQ WW VHF contest were much worse than the June ARRL Contest. Signals were weak and I was on FT8 most of the time. I sure noticed a difference in the response rate calling weak signals with the amplifier at 500 watts on 6 meters. The amplifier still has not moved from the temporary test position. The contest came before I had time to make cables. One of the jumper cables I made had a short and I used my time domain reflectometer to find out which end of the cable it was on. The TDR is the small board on the front of the oscilloscope.

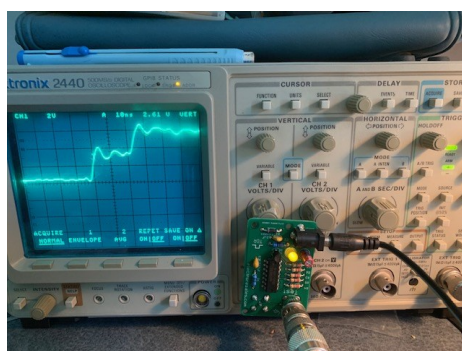


Fig. 8. The \$15 TDR. You must have noticed that the fault is now cleared and the TDR shows an open.

This month I also repaired my EME station. The failure mode for the 2-meter EME preamp was a coax connection I use to bring DC to run the relays at the antenna.



Fig. 9. What is wrong in this photo. Can you spot it? Lots of solder but no connection.

This center conductor connection has worked for 2 years and finally failed open. It appears that the solder never really made a good connection. You can see flux around the center conductor of the coax. I replaced that connector and had Bob, K8KI, help me get the SWR back in great shape. I drove my LDMOS amplifier with only 3 watts in and got 700 watts out on 2 meters as shown below.

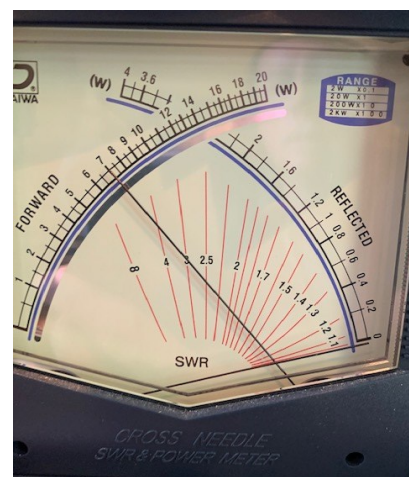


Fig. 10. 700 Watts Out and 1:1 SWR to boot.

I got my repaired preamp back from ARR and got it back up at the antenna. It was ready just in time for this month's good EME days. The first day I made 8 contacts 6 of which were first time contacts. One was with JHOBBE. It took me 40 minutes to complete the QSO. I heard him call CQ three times during that period. On EME you have constant contact on the web with who is on and what frequency they are on. After 30 minutes JHOBBE, Yuu, sent a message to me. "Steve have patience." When he finally heard me and answered, I copied him at -30dB (that's 30dB below the noise – a spectacular digital trick). See Fig. 11. There are some contacts you always remember and that will be one of them.

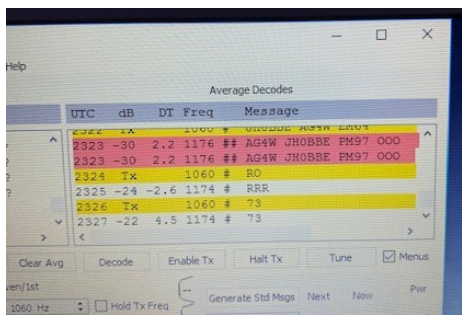


Fig. 11. 30dB below the noise!

Johnny, KR4F showed me a new DX tool this month. It is DXMaps.com. You can see the openings on a map real time. This is really useful to see the magnitude of E skip openings and their direction.

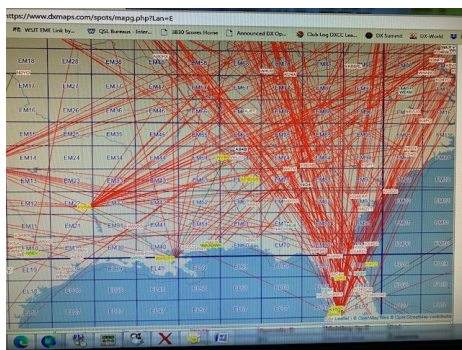


Fig. 12. DX Tool.

This has been a great summer for E skip and EME. I have already reached my goal of having 200 more new grid squares between 6 and 2 meters. I also have confirmed 18 new countries on 6 meters and 8 new countries on 2 meters on LOTW. I have also worked a total of 134 unique stations on EME now. This month I worked a station with a single 12-element yagi and 1000 watts. Conditions needed to be great to do that with my 2X13 element LFA yagis and 700 watts.

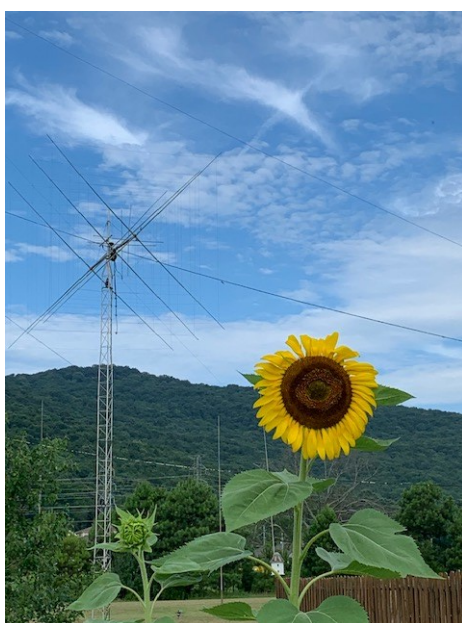
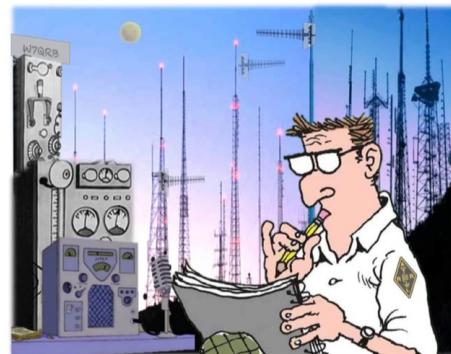


Fig. 13. Giant sunflower, Audrey, guarding the heavy metal.

My garden sure did well this year. I have made 21 jars of pickles. We have been giving away most of the vegetables. I grew sunflowers this year to get the seeds for the birds in the winter. One of them is over 10 feet tall. The flowers are 14 inches across. Burpee seeds and Miracle grow sure work for me. The quad and EME antenna look nice with sunflowers.



If I add just one more antenna and increase power by 3db, I can bounce signals off Jupiter.

Fig 14. Cartoon.

I had to include this cartoon this month because it reminded me of a conversation I had with the operators at D4C. We were talking about the cost to get 3 more dB. It can get way expensive when you already have a super antenna because you then need an antenna the size of 2 super antennas. The EME hams go from 2 to 4 to 8 to 16 yagis to accomplish it. Each time the complexity really goes up.

I will end this month's update with a picture of the new normal. I liked call-sign hats and shirts better.

73 Steve AG4W



Fig.15. This is a stick up. Don't pay any attention to the name on my mask.

## Self-Spotting Tools for DXers

By Mark Morgida, AA2MA

I'm a newcomer to QRP operation after purchasing a used FLEX-1500. Calling CQ a dozen times or more isn't very much fun and I always wonder "am I getting out?" You can do propagation predictions using VOACAP or other variations but the real truth is to self spot your signals using one of the spotting tools available to you. Two tools I'll review are the Reverse Beacon Network and the PSK Reporter Network.

The Reverse Beacon Network or RBN is available at address <http://www.reversebeacon.net/> and currently provides only tabular information. Selecting the **<Main>** tab from the web site menu brings you to a page of most recent spots. Call CQ a few times on one of the supported modes CW, RTTY, PSK31, PSK63, FT8 or FT4. Select [search spot by callsign](#) option and then fill in your callsign as the DX station and click search. You'll be given a table of the most recent spots with your callsign together with the signal strength, frequency and mode and time of observation.

de	dx	freq	cq/ dx	snr dB	speed wpm
N5RZ	AA2MA	7020	CW CQ	21	11 wpm
KI4PAD	AA2MA	7084	RTTY CQ	10	45 bps
N9YKE	AA2MA	7023	CW CQ	4	12 wpm
W8WTS	AA2MA	7024	CW CQ	7	12 wpm

By examining the SNR for the various spots, I can tell if my signal is easily workable or a difficult copy and adjust my expectations accordingly.

You can search this database by call sign, country, zone, bands, beacon or combination. You can even download DX spot raw data and do your own analysis to determine operating or propagation patterns.

The next tool is the PSK Reporter Network available on the web at <https://pskreporter.info/>. This is similar to the RBN covered above, but displays its output on a global map, covers more modes, and has a deeper spotting network. To use this tool, select [map display](#) link from the main page. Call CQ a few times using your favorite mode. Then fill out the query form at the top of the map window and click the **Go!** button. Depending on the mode and band selected the map will populate with location icons (balloons) for each spotter location active during the selected period, band and mode and also flags for each spot reported by that spotter. Hovering your mouse over one of the flags will provide details about the spot data. The following spot was copied from the 7 part query on [20 meters](#), showing [signals sent by call sign AA2MA](#) using [FT8](#) over the last [12 hours](#).

Rx at Mon, 27 Jul 2020 16:23:29 GMT  
From [AA2MA](#) by [HC1DAZ](#) Loc FI09sv  
Frequency: 14.074.795 MHz (20m), FT8, -20dB  
Distance: 3976 km bearing 165°  
Using: JTDX v2.1.0-rc148

In the above example, my FT8 signal was received in Ecuador (FI09sv) at -20 dB. Certainly a workable signal on FT8.

You may be wondering how and where these tools receive their spotting data. The answer is as you'd expect – from hams like ourselves who are willing to invest some time and effort into setting up the various mode software skimmers and aggregators needed to provide thousands of spots throughout the day and night. If you'd like to try providing spots, the easiest way to do it is to simply activate spot reporting the next time you are using WSJT-X soft-

ware. From the **File>Settings** menu, select the **Reporting** tab. Under the **Network Services** section, select **Enable PSK Reporter Spotting** as shown below. That's it. After about 10 minutes, do a query on <https://PSKReporter.info/> for stations heard by your call sign and you should see your spots shown on the map. Providing CW and other types of spots is a little more difficult and requires additional software and may be the subject of another article. I hope you enjoy these tools.

Questions can be sent to [AA2MA@ARRL.NET](mailto:AA2MA@ARRL.NET).

73,  
Mark, AA2MA

### NADXC Officers and Directors

President	Bob De Pierre, K8KI
Vice President	Steve Molo, KI4KWR
Secretary/	Chris Reed, AI4U
Treasurer	
At-large	Kevin Hibbs, KG4TEI
Directors	Tom Duncan, KG4CUY
(Ex-Officio)	Steve Werner, AG4W

## A and K Indices

By Anita Vibbert, KD2KAG

The Earth's magnetic field is continuously monitored by a network of magnetometers. These readings are converted into the A and K index values.

The K index is computed once every three hours (eight times a day) and the values can range from 0 to 9, with 0 being inactive, and 9 representing an extreme severe storm condition. The values are quasi-logarithmic.

K = 0 Inactive  
K = 1 Very quiet  
K = 2 Quiet  
K = 3 Unsettled  
K = 4 Active  
K = 5 Minor storm  
K = 6 Major storm  
K = 7 Severe storm  
K = 8 Very severe storm  
K = 9 Extremely severe storm

The A index is linear, and is computed from the eight previous K index values. It ranges from 0 (quiet) to 400 (severe storm).

A = 0 - 7 Quiet  
A = 8 - 15 Unsettled  
A = 16 - 29 Active  
A = 30 - 49 Minor storm  
A = 50 - 99 Major storm  
A = 100 - 400 Severe storm

Generally, propagation conditions are best when the A index is 15 or lower, and the K index is 3 or lower.

Besides causing auroral activity, high geomagnetic field conditions can affect the electrons in the ionosphere, reducing the maximum usable frequency (MUF).

The A and K values are important for computing the propagation but note that these two variables are related so you only need to use one of them, the lower of the two. Read Rob Suggs' article in this edition to see what is the most important variable: The sunspot number.

## July Meeting Minutes

By Chris Reed, AI4U, NADXC Secretary/Treasurer

Bob K8KI called the virtual meeting of the North Alabama DX Club to order on the 147.300 repeater and Zoom on Tuesday July 9, 2020 at 7pm.

Bob updated everyone on the work done on the repeater by Rob Conklin, N4WGY. The repeater was totally rebuilt and is on the air.

Rob wouldn't take any payment but Bob, K8KI made a motion to donate \$200.00 to NARA. The motion was seconded and carried. A discussion was held regarding the repeater power bill and payment. Chris, AI4U suggested payment in the amount of \$160 for both 2019 and 2020. A motion to this effect was made and seconded, and the vote carried.

The meeting was adjourned.

Chuck Lewis, N4NM presented the program "The rarest QSL card ever". The next virtual meeting is scheduled for 7 p.m. Tuesday, August 11th on the

147.300 repeater and Zoom. Information will be sent prior to the meeting.

Respectfully submitted,

Chris, AI4U

## Treasurer's Report

By Chris Reed, AI4U

Balance on July 1 \$ 8989.68

- 160.00 Repeater Powerbill
- 200.00 to NARA for repeater maintenance
- 235.00 to Bob, K8KI for NM4T ARRL Memorial Brick and replica for his wife

Balance July 31 \$ 8394.68

Paypal refunds were issued to those that bought banquet tickets.

We had one family dues renewal and two individual membership renewal payments.

Paypal Balance July 31 \$ 136.41

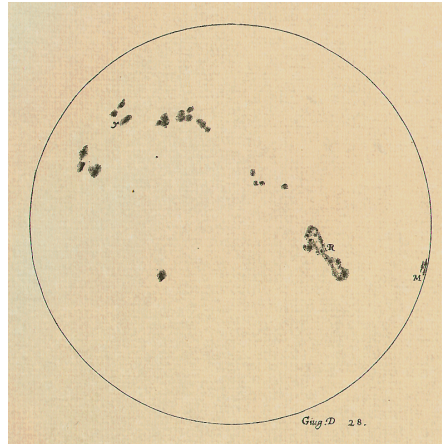
## Counting Sunspots

By Rob Suggs, NN4NT

We all know that when there are no sunspots we typically have bad band conditions meaning poor propagation on the higher HF bands. When there are lots sunspots the higher bands may be open worldwide and well into the evening. Propagation software frequently takes sunspot number as an input to account for the level of solar activity. So how are those numbers determined? Do you just count how many spots you can see with a telescope or do the number of groups of spots matter? Galileo first saw sunspots when he pointed his small telescope at the sun and started making drawings of them. We can thank Professor Wolf who, way back in 1848, developed this expression which takes into account both numbers of spots and groups.

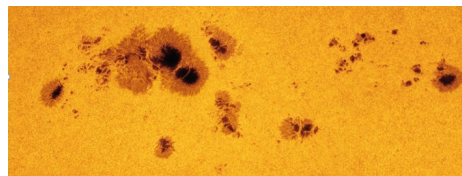
$$R = (10 * G + S) * K$$

where R is the International, or Zurich, sunspot number, G is the number of sunspot groups, S is the total number of sunspots, and K is a fudge factor. If you roll out your solar telescope (safety is very important here so be sure you know what you are doing) and count one lonely sunspot, it still counts as a group so  $R = (10 * 1 + 1) = 11$ , times your particular K value. Astronomers have been counting spots since the early 1600s and, needless to say, the capabilities of the telescopes and techniques have changed a bit since then so for that long record to be useful all the data has to be placed on a consistent scale. That's where the magic K comes in. That has to be determined for each observatory making the counts.



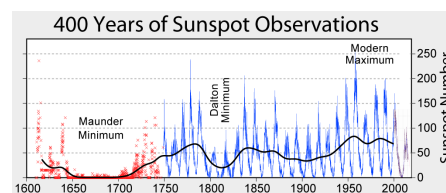
[http://galileo.rice.edu/images/things/sunspot\\_drawings/ss628-l.gif](http://galileo.rice.edu/images/things/sunspot_drawings/ss628-l.gif)

Figure 1 – Galileo's drawing of sunspots from the early 1600's.



[https://en.wikipedia.org/wiki/Sunspot#/media/File:Solar\\_Archipelago\\_-\\_Flickr\\_-\\_NASA\\_Goddard\\_Photo\\_and\\_Video.jpg](https://en.wikipedia.org/wiki/Sunspot#/media/File:Solar_Archipelago_-_Flickr_-_NASA_Goddard_Photo_and_Video.jpg)

Figure 2 – A group of sunspots from a modern telescope.



<https://en.wikipedia.org/wiki/Sunspot>

Figure 3 – Sunspot numbers have been counted since Galileo's time. The average 11 year solar cycle is apparent as are some long term trends.

But even this procedure doesn't completely account for variations in techniques over time. The sunspot wizards at the Royal Observatory of Belgium are the internationally recognized "keepers of the sacred scrolls" of

sunspot numbers. They and a group of other experts in all things sunspotty got together and came up with a new process for correcting the old data resulting in about a 40% shift of solar maximum counts.

If you are interested in the details of this change you should take a look at K9LA's article in the October 2016 issue of QST. He goes through the changes in the historical counts and the new calibration. He also calculates the difference this makes to propagation predictions. The bottom line is that there could be an error in the maximum usable frequency of a couple of MHz using the different data.

A number of propagation prediction programs use sunspot number as an input so we need it. But there is a more objective measure of solar activity called the solar flux or solar flux index. Its symbol, F10.7, means it is the solar radio noise at a wavelength of 10.7 cm or about 2800 MHz. It is a proxy for the extreme ultraviolet emission which is the real cause of ionization of the upper atmosphere which creates the ionosphere. When the sunspot number is zero the solar flux can be around 65 – 70 and we know there is still EUV emission from the sun and F layer propagation is possible. Large increases in that emission comes from solar active regions, sunspots, hence the correlation of sunspot number, F10.7, EUV and subsequently electron density in the ionosphere. F10.7 has only been measured since the 1940s so its period of record is much shorter than the venerable sunspot number. However, it is an objective measurement with none of the voodoo needed to count sunspots.

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## Counting Sunspots

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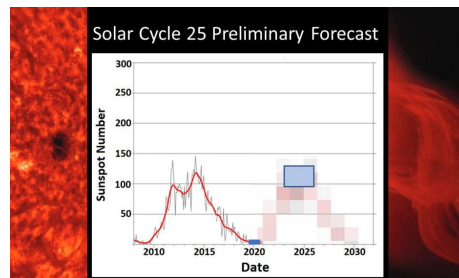


<https://nrc.canada.ca/en/research-development/products-services/technical-advisory-services/solar-weather-monitoring>

Figure 4 - Dominion Radio Astrophysical Observatory in British Columbia measures the F10.7 index daily.

We may be “down in the count” right now but a few spots have been seen from the next solar cycle so we can keep our fingers crossed and our rigs ready for action as the next solar cycle ramps up and the sunspot numbers start climbing. The next cycle is forecast to be similar to the last one with a peak sometime in the 2024 – 2026

time-frame. For a wealth of information including current space weather conditions and forecasts check out <https://www.swpc.noaa.gov/>. There is some great tutorial information at <https://www.swpc.noaa.gov/phenomena>.



<https://www.swpc.noaa.gov/news/solar-cycle-25-preliminary-forecast>

Figure 5 - Outlook for upcoming Solar Cycle 25

While propagation forecasting tools are a great way to estimate where you *should* be able to contact, there is no substitute for spinning the dial, calling

CQ, or my favorite, tune to the FT8 portion of the bands. If a band is open there is likely some FT8 activity, regardless of how you count your sunspots.

Good DX!

Rob Suggs NN4NT

## Field Day Summary

The numerical summary of K4BFT's 2020 Field Day results is 8596 QSO points and 1390 bonus points for a total of 9986 points. But there's much, much more to the story, as recounted in this month's VOX, HARC's newsletter, available from [www.harc.net](http://www.harc.net). Select VOX Archives from the home page, and read about it in the August, 2020 edition. Thanks once again go to long-time VOX editor Mark Brown, N4BCD.

## Predicting Propagation Using a Software Tool

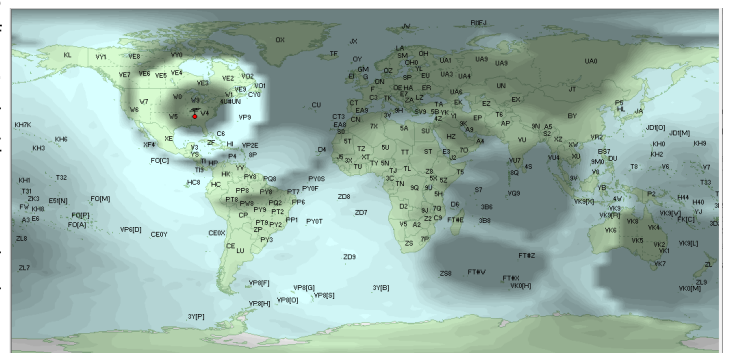
By Bob DePierres, K8KI

Propagation maps I've seen over the past few days indicate that the next Solar Cycle is set to start imminently, if it hasn't already. Most of the graphs I've seen shows years versus the sunspot number. Sunspots are blobs you can count if you are willing to look very closely at the sun, but the sunspot number is a computation based on those blobs. So here is a view of prediction maps from a guy who only knows that more is better.

I use a software mapping predictor called Ham CAP. It comes from VE3NEA, who also brought us CW Skimmer and DX Atlas, and can be found at [DXATLAS.com](http://DXATLAS.com). It also uses a program from the same site called IonoProbe, which incorporates the well-known

VOACAP database. The maps in Ham CAP are very small, but they translate over to DX Atlas, which portrays stunning graphics on your 24" monitor. Getting these displays is quick and easy, and you don't need to know much about propagation. Further, the message these maps send is clear and evident.

Ham CAP allows you to enter a lot of pertinent data. What is most interesting is to look at the prop map today, with SSN = 0, which looks like the picture to the right tonight on 20m:



There's a lot of dark area here. The colors represent the signal-to-noise ratio. Bright means the SNR is high (good), and dark means you can't hear the guy (bad). That's today. Sigh!

Cont'd on p. 8

## Predicting Propagation Using a Software Tool

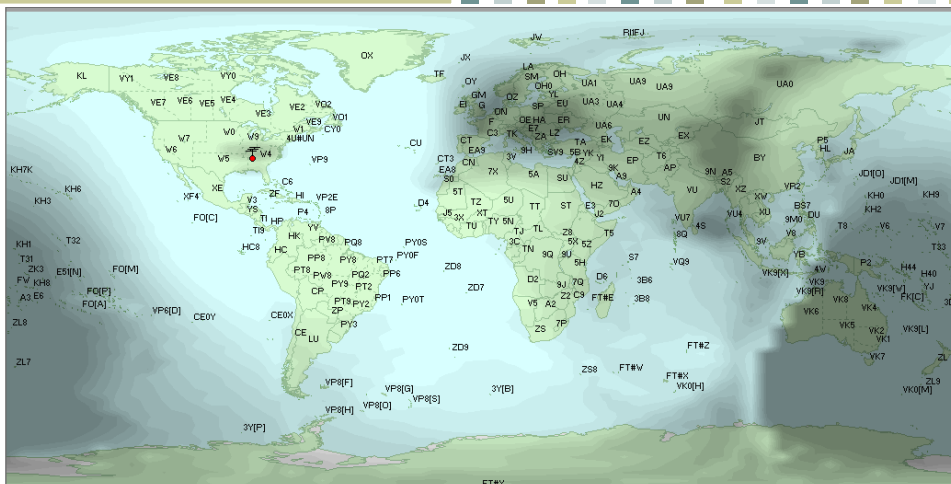
(cont'd from p. 7)

The screen shot to the right is for SSN = 100, which was the case during the previous (but relatively poor) peak of the sunspot cycle (2013-2015). The only variable change in these two shots is the SSN, for 20m at night (20m is a day band).

So my conclusions, folks, 1) take a look at Ham CAP, and 2) get ready for a big change in the DX picture. All is not lost after all.

73,

Bob, K8KI



## From the President

(cont'd from p. 1)

celling our autumn picnic. Words can't express my sadness on this one.

I got an email from the World Amateur Radio Contesting Association the other day. They say my contest scores have now advanced me to rank number 3135 in the world. I don't know whether to be happy or sad, but at least now I know where I'm at. Did anybody else get their ranking? You ought to go to <https://warca.org> and see how

many names you might recognize. Their highest ranking local ham was Larry, K4AB.

Our presentation this month is from Bruce Smith, AC4G, and his views on using the plentiful, but squirrely, CATV 75Ω hardline. Bruce can spin a good yarn, so come listen to him tell his story. Meeting at 7pm on Tuesday, August 11. The Zoom part of the meeting will open at 6:30. I will augment the Zoom

meeting via our new 147.300 repeater, but the program will be on Zoom only.

73,

Bob, K8KI

## The Vote

By Tom Duncan, KG4CUY

After months of preliminaries, it is time for us to vote on changes to the constitution establishing three categories of membership, to be defined as follows if our vote to change the constitution passes:

**Article I, Membership, Section 1** will be amended to read:

"Membership shall be open to all persons meeting membership requirements detailed in the by-laws, in three classes: Regular, Emeritus, and Inactive."

**Article I, Membership, Section 3** will be amended to read:

"A Regular member may resign by verbal or written notice to the club Secretary/Treasurer at any time. A member who resigns will be removed from Inactive status as well."

**Article I, Membership, Section 5** will be amended to read:

"Membership for Regular members shall revert to Inactive Status in the event of non-payment of dues. Regular membership privileges shall be reinstated immediately upon receipt of the current year's dues by the Secretary/Treasurer. Regular members who revert to Inactive Status can remain in that status indefinitely, and their DXCC totals will always remain."

**Article I, Membership, Section 6** will be amended to read:

"Members in any class may be removed for cause by a three-fourths (3/4) majority vote of Regular members in attendance at a regular meeting. Cause for removal shall first be presented to the Board of Directors in writing and, upon a majority finding of sufficient grounds by the Board, shall be presented to the membership for a vote."

The floor will be open for discussion (unlikely at this late date), to be followed by the vote. If the stars are properly aligned, the vote will pass, ending the Saga of New NADXC Membership Classes to 3/4 a super-majority's satisfaction.

## VP Corner

By Steve Molo, KI4KWR, NADXC Vice President

Hello Fellow NADXC Members, hope everyone is staying safe in the current situation we face. Still busy at the Store and especially this QSO Today Virtual Hamfest weekend. Good topics discussed and Booths for anyone seeking new gear or a discussion.

As of today (August 7<sup>th</sup>) the Sevierville Hamfest in Sevierville TN is still on for September 19<sup>th</sup> at the Sevier County Fairgrounds and I will be in attendance with a Booth taking online orders.

Next weekend is the 2020 North

American QSO Party (SSB) and hope to see some on the air for the contest.

DXCluster Cloud Based: KG400L  
dxfinder.bfielding.com:7300  
(Cloud Server Based)

Stay safe and if you have not heard.... ICOM IC-705 FCC Certification is complete and expect arrival to GigaParts late September as per Ray Novak (ICOM)

73,

Steve KI4KWR

## The LongPath Staff

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Kevin Hibbs, KG4TEI, The Casual DXer

## The Casual DXer

By Kevin Hibbs, KG4TEI

I have a love-hate relationship with trees. As a casual DXer with a tower currently horizontal in the back yard a tall tree can be great for hoisting up antennas. Almost all of my contacts have come from a wire dipole strung between tree limbs. However, when a tree limb snaps off and breaks the antenna for the third time this year it is no fun to try to wrangle the remnants out of the tree to get back on the air. This is especially true as I need just one more contact to make DXCC Digital, one more for DXCC 20M and 15 more for DXCC on 17m. Just a few more to go. Hopefully by the time you read this article I will have the antenna back on the air.

This past weekend I was thankful for a tall tree. I got to go spend some time at Fall Creek Falls state park in Tennessee to decompress and enjoy family. I did a little research before I went and decided to participate in the Parks On The Air (POTA) program. The goal of the program is to activate national and state parks. Sign up is easy. The website also allows for self-spotting so those who desire to work the park know when the park is active. My set-

up consisted of my go box radio many of you saw at the club picnic last year and an L antenna with 53' sloping into a tree about 25' in the air on the high end and 26' vertical hanging down from a 9:1 unun. It is supposed to be a true end-fed antenna, but I am a big believer in using a counterpoise to aid in turning and performance. The activation went well, 101 contacts in the log. I've included a picture of the contacts on 40m and 30m during the weekend. There are several DX stations listed in my log this year. Not bad for calling CQ with only 20W. I have tried to run a radio from this location before, but have had only marginal success. Last year I only got 14 con-

tacts total for the weekend and the year before that zero. I consider this year's activation a big success and most likely due to the POTA program and getting spotted by other POTA hunters while operating. If you have any questions about POTA or my setup let me know. I am considering another POTA operation in the near future. Maybe Monte Sano would be a good next stop.

That's all for this month. Hopefully by next month I will be able to report some new DXCC achievements.

73,

Kevin KG4TEI

